

When a hole matters

- the story of the hole in a bread for French hotdog

LCA of bread for French hotdog

- Introduction
- Background
- Identification of hot-spots in the value chain
- Different production technologies for making the hole
- Discussions
 - Our opportunity to influence agricultural production
 - Our opportunity to influence hotdog men
 - Our opportunity to achieve environmental improvements in the bakery

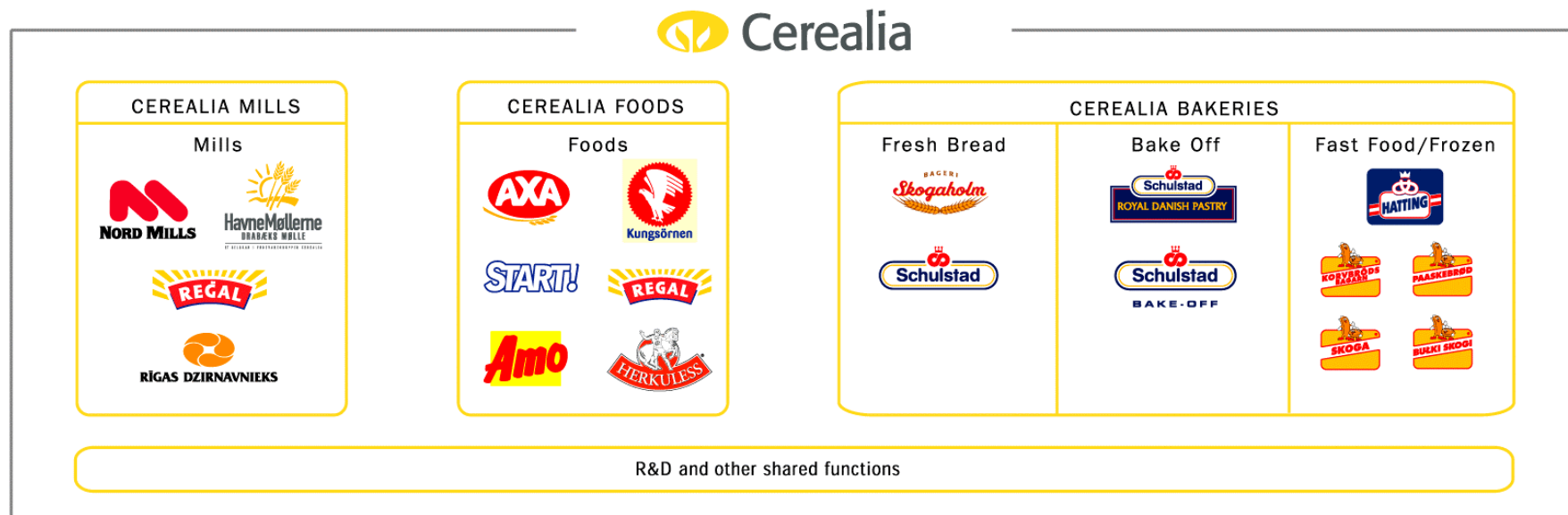
Cereals - the base!

- Cerealia - an international food group with approximately 5,800 employees.
- Operates about 60 facilities in Sweden, Denmark, Norway, Finland, Germany, Poland, Latvia and Ukraine, as well as Great Britain, USA, Russia, Spain and Japan.
- Turnover approximately SEK 9,000 million.



Overall organisation

- The business takes place in five business areas within three strategic business sectors.



www.cerealia.se

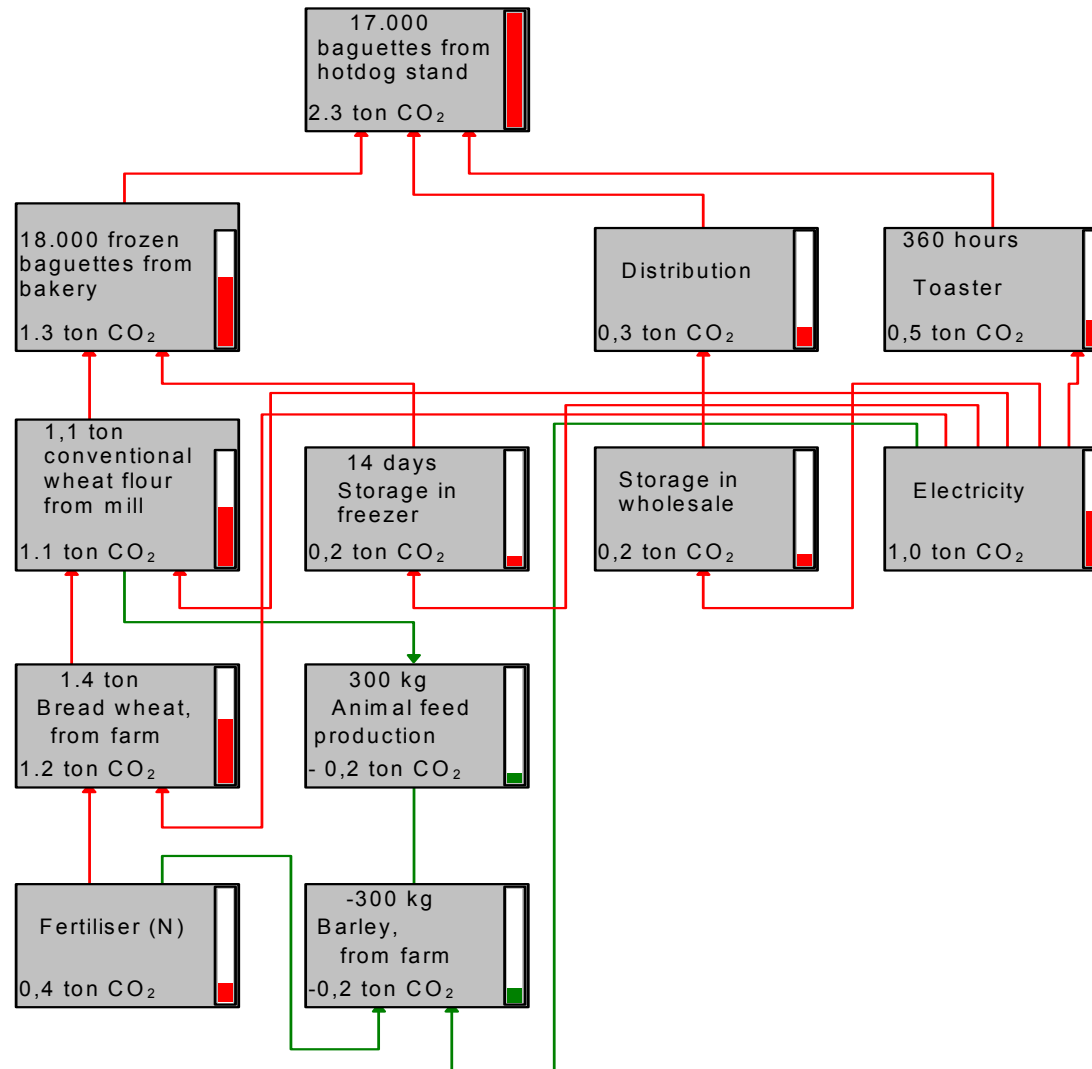
www.cerealia-bakeries.com

Background



- LCAfood project - Denmark and Sweden
- Environmental project “LCA - as a tool in the learning bakery”

Identification of hot-spots in the value chain



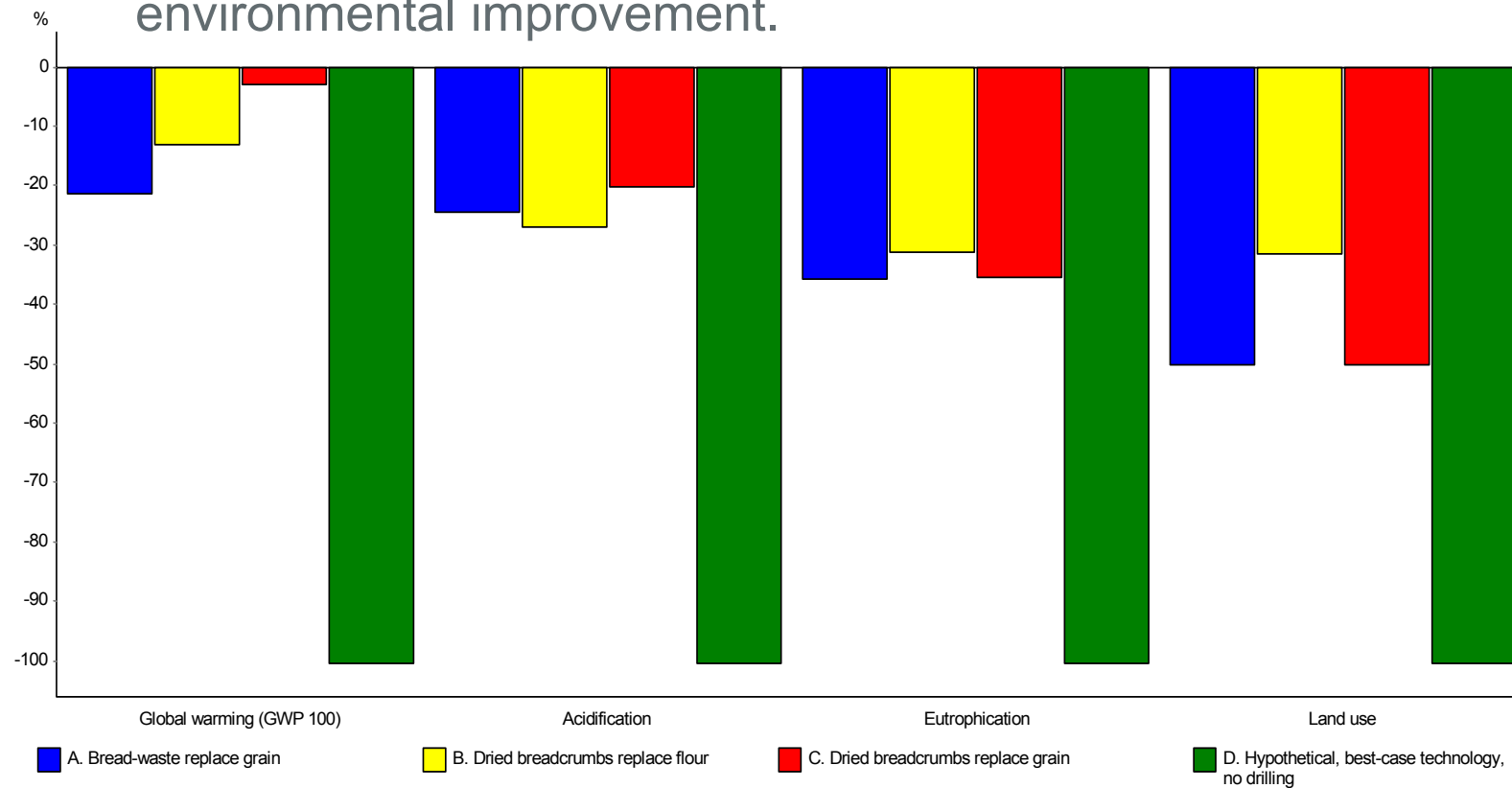
Different production technologies for making the hole

- Before - done by spear
- Now - done by drilling a hole (soft
- still done with a spear)
- Bread waste is re-used
 - animal feed
 - dried bread crumbs
 - replacement as flour
- No holes or new development?



Different production technologies for making the hole

Table 1. Comparison of environmental impact from a change in production-technology from old production, where the hole is made. Negative bars shows that a change to the technology yields an environmental improvement.



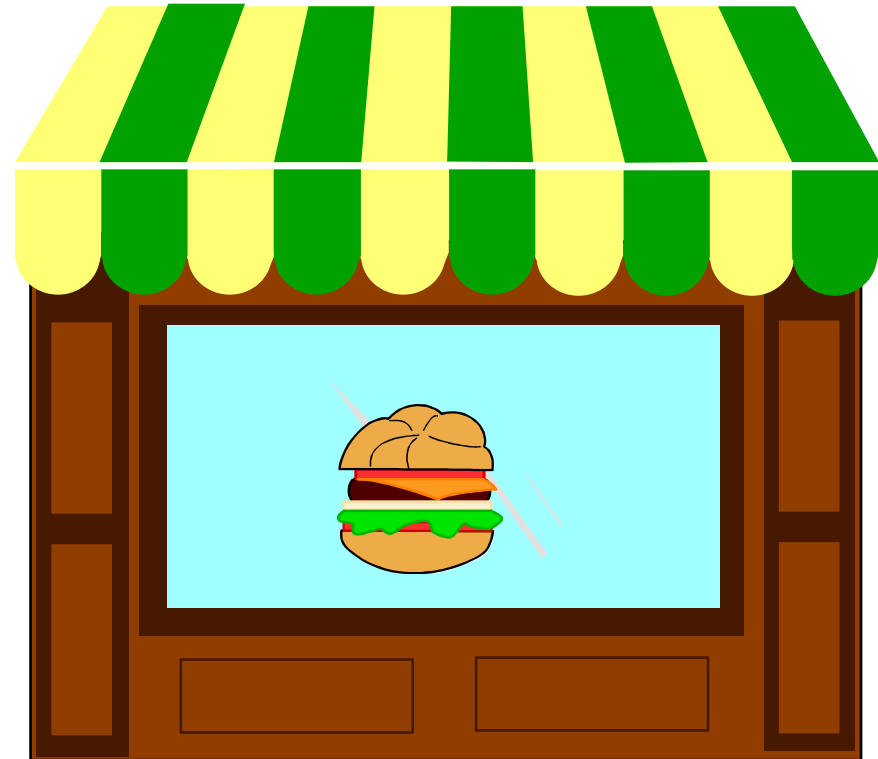
Our opportunity to influence agricultural production

- Majority of environmental impacts
- Data from LCAfood data base in Denmark
- Use of other types of flour - more environmental friendly or organic flour?
- Use of more bread waste?



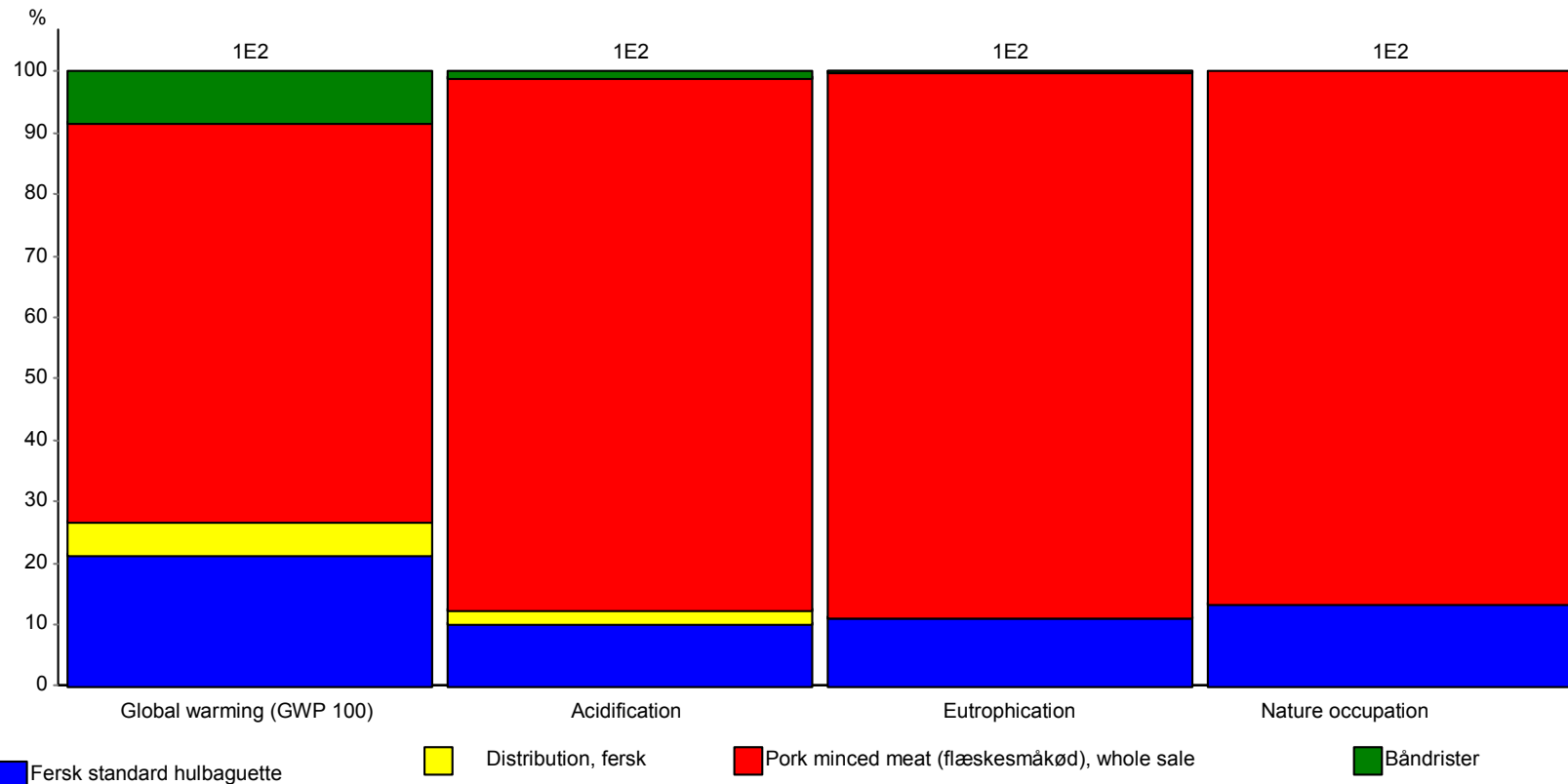
Our opportunity to influence hotdog men

- Second most important of environmental impacts
- Data not available from “real life”
- More bread and less sausage?
- Fast food and environment?
 - The trend of “less fat - more fibre”



Our opportunity to influence hotdog men

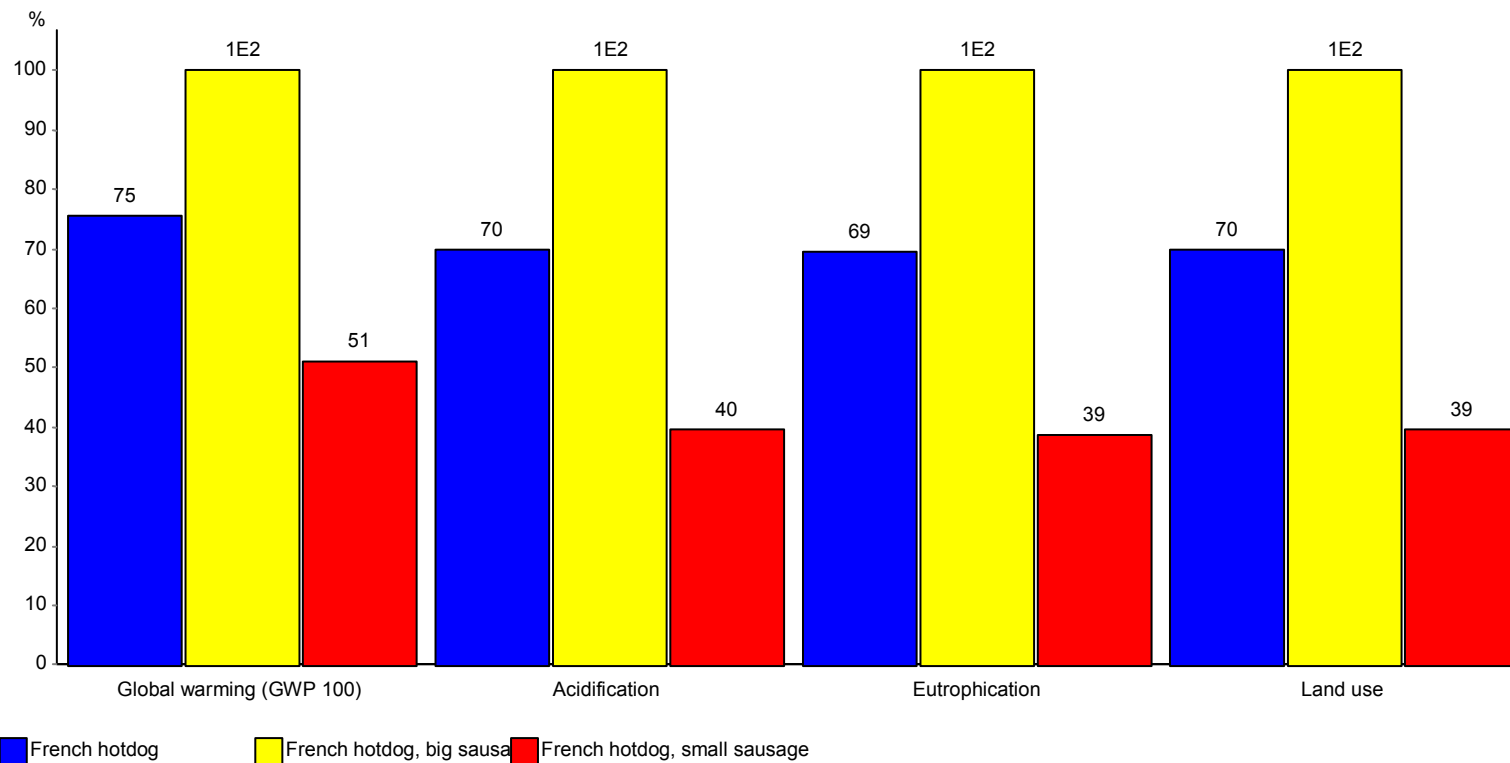
French hot dog with sausage



Analyserer 1 p design 'French hotdog'; Metode: EDIP, LCAfood, simple / EDIP World/Dk / karakterisering

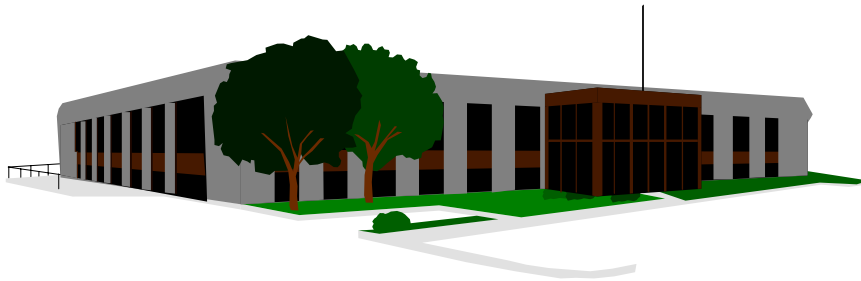
Our opportunity to influence hotdog men

Different French hot dog with sausage



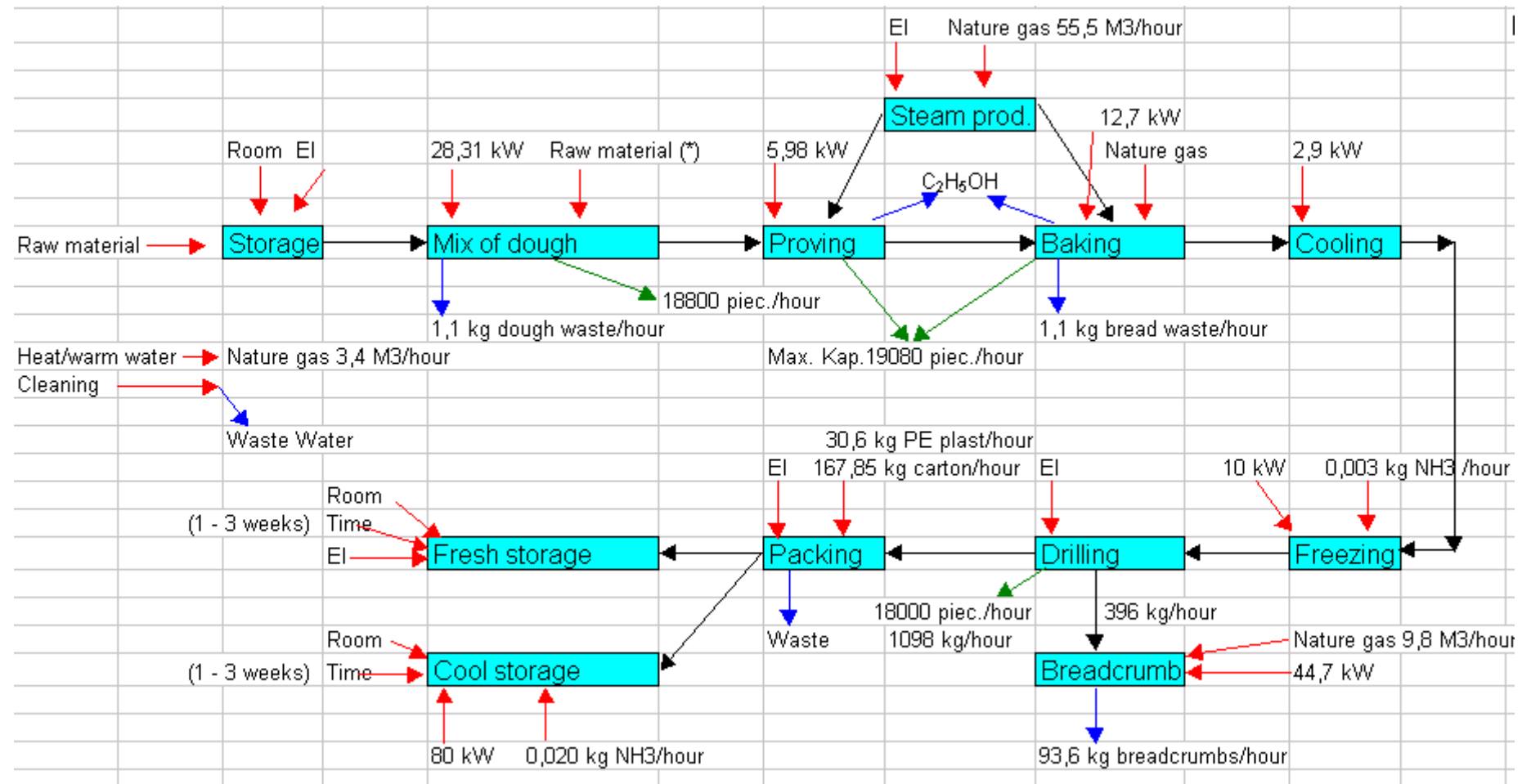
Sammenligner 1 p design 'French hotdog' med 1 p design 'French hotdog, big sausage' og med 1 p design 'French hotdog, small sausage'; Metode: EDIP, LCAfood, simple / EDIP

Our opportunity to achieve environmental improvements in the bakery



- Not important environmental impacts but easiest to handle
- Data available from “real life”
- Learning groups
- Good suggestions and many savings

Identification of hot-spots in the production chain



Environmental projects Karup

- Waste
- Water
- Energy
- Others

Projekt/opgave	Gennemført ?	Deltagere	Besparelse i kWh (evt. kr.)
Varmegenvinning Pakkeri L. 1	Ikke iværksat	TT, Jean, Snaller	
Blandingsbatteri til håndvask (temperatur sænkes fra 65 °C til 40 °C)	Ja. ☺	Tina, Tove, Bo, Susanne K	3.853 kWh/år (650 kr/år)
Energiforbrug ovn	Linie master igangsætter Procedure. ☺	Paw, Knud, FC, Ryan	El: 6.519 kWh/år (3.585 kr/år) Naturgas: 121.328 kWh/år (21.000 kr./år).
Opstart kølebånd	Ikke iværksat Risiko for brød på gulvet er for stor.	Brian, Frank, Hans Kristian, Pia	522 kWh/år
El forbrug luftpuder ved læssemper.	Investering: Ca. 1500 kr. til info. skilt. Ikke iværksat Risiko for ødelagte luftpuder er for stor.	Paw, Knud, FC, Ryan	2.588 kWh/år (1.424 kr/år)
Lys omklædning og pakkeri	Vejledning/skilt er ikke udarbejdet	Carina J, Jette, Jesper, Claus, Susanne N	?
Opstart Fuji	Ikke iværksat Ikke relevant da der kun er 8 timers produktion pr. uge.	Carina J, Jette, Jesper, Claus, Susanne N	?
Lysbesparelse ved Linie 3	Investering 3.000 kr. LUX målinger skal udføres inden ændring.	Gurli, Isa, Anna Grethe, Dariusz, Birte	2.200 kr/år
Strømforbrug multivac	Tænd/sluk Procedure er udarbejdet.	Lene, Karina, Kaja, Anja	?
Weekendstop maskiner m.v.	Instruktion er igangsat. ☺	Hans Kristian, Anette B, FC, Ryan	?
Luftkompressor (weekend stop + tætning af system)	Investering 19.000 (arbejds løn + tænd/sluk ure). Igangsat. ☺	Hans Kristian, Anette B, FC, Ryan	41.290 kWh 22.709 kr/år Tilbagebetalingstid 0,83 år
Kølekompressor (indfrysning/afrimning)	Registrering + instruktion igangsættes uge 12 ☺	Frank, Freddy, Jannik	?

Summary

- Background
- Identification of hot-spots in the value chain
- Different production technologies for making the hole
- Discussions
 - Our opportunity to influence agricultural production
 - Our opportunity to influence hotdog men
 - Our opportunity to achieve environmental improvements in the bakery

